# INCREASING DIGITAL LITERACY

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## INCREASING DIGITAL LITERACY

There are various definitions of digital literacy.

One simple definition is "the ability to find, evaluate, utilize, share, and create content using information technologies and the internet."

Digital literacy covers a wide range of skills, all of which are necessary to succeed in an increasingly digital world.

Digital literacy builds on general literacy and reading skills. It provides people with an understanding of how digital technology functions, and how to use it effectively.

This includes critical thinking and assessment of information, familiarity with various digital devices, the ability to navigate the internet, and an understanding of issues associated with digital technology -- like data privacy and digital identity. These skills are now seen as essential.

Many who already use digital technologies -- such as tablets, smartphones or computers -- may already know how to browse the web, share images on social media, and do a basic search to find information. However, digital literacy today involves much more.

Digital literacy goes beyond technical knowledge and skills, and involves self-care, respectful behaviour and ethical conduct when using digital tools and going online. This is the vision for digital literacy that we need to promote in Sri Lanka.

Digital literacy is an umbrella concept for important skill clusters whose names are often used as synonyms; their content, however, is not exactly the same.

ICT literacy refers to a set of user skills that enable active participation in a society where services and cultural offerings are computer-supported and distributed on the internet.

Technological literacy (previously called computer literacy) entails a deeper understanding of digital technology and comprises both user and technical computing skills.

Information literacy focuses on one of the key aspects of our Knowledge Society: the ability to locate, identify, retrieve, process and use digital information optimally.

### THREE FACETS OF DIGITAL LITERACY

Digital literacy skills have been categorized into three main areas: Finding and consuming digital content; creating new digital content; and communicating or sharing digital content.

**Finding and consuming digital content:** One of the most important components of digital literacy is the ability to not just find information, but also to evaluate that information. This means judging whether the information source is reliable and the information itself is trustworthy. The ability to weed out false information and find reliable content is an important survival skill today.

Creating new digital content: With so many free digital tools and services available online, we now have many different ways of creating new content that is interesting, visually rich, data driven and interactive. Acquiring these skills for content creation is a key part of digital literacy – it is useful for students, teachers, journalists and many other professionals who need to communicate information and ideas to various audiences.

Communicating or sharing digital content: Knowing how and when to share (or not to share) information we found online, and the content generated by ourselves, is also a valuable skill. Sharing has become easy with social media, but there are dangers of passing on wrong information (which becomes misinformation) or posting inappropriate comments or images online.

The ability to create and share content online is helpful in the networked society but learning how to do that while respecting other human beings, and adhering to copyrights and ethics is equally important.

### DIGITAL LITERACY IN SRI LANKA

Digital literacy in Sri Lanka is still in its early stages. It is not to be confused with computer literacy because digital literacy involves a wider set of skills.

The Department of Census and Statistics (DCS) has been measuring computer literacy for more than a decade and has recently started measuring digital literacy as well. However, they use a narrow definition.

The Department defines computer literacy as the ability to operate a computer on one's own, irrespective of age. The computer literate population is expressed as a percentage of the total population aged 5 to 69 years.

The DCS definition of digital literacy is also basic one: a person (aged 5-69) is considered as a digital literate if he/she could operate computer, lap top, tablet or smartphone on his/her own. This definition does not look at any skills in using software or navigating the internet.

DCS conducts regular surveys to measure computer literacy and digital literacy. In 2018, DCS measured computer literacy rate in 28.3% (during the first six months). In comparison, the digital literacy rate for the whole population was 40.3% (males 44.5% and females 36.4%).

"Digital literacy is higher than computer literacy for all disaggregated levels, showing the drift from personal computer to smartphones/tablets," the DCS survey report noted.

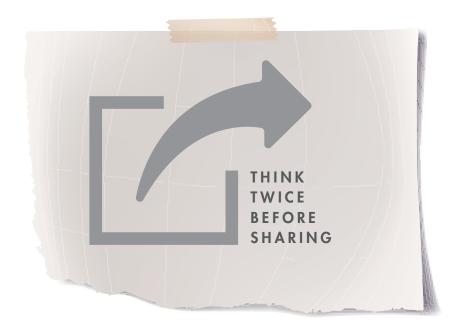
These surveys have found that the computer literacy and digital literacy skills are higher among those living in cities, and those younger in age. Digital literacy is not yet common among those over 50 years.

What DCS measures is a basic set of digital competencies, which are necessary **but not sufficient** for digital literacy.

For example, how many people who have access to the internet actually make use of the many online services available? And what is preventing them from making better use of these facilities?

A recent survey by the ICT thinktank LIRNEasia found that a majority of Lankan web users do not go beyond simple browsing to derive various economic and efficiency dividends the web provides. Only 40% of internet-users have done an interactive function such as a web search, posting or commenting on a website or social media, install an app, or create a log-in for using a particular web service.

The main reason, this survey found, was that many users did not have the necessary knowledge and skills – or were afraid of venturing beyond a few familiar websites like Facebook. This highlights major gaps even among those who can operate digital devices and access the internet.



<sup>1</sup> http://www.statistics.gov.lk/education/ComputerLiteracy/ComputerLiteracy-2018Q1-Q2-final.pdf

<sup>&</sup>lt;sup>2</sup> https://lirneasia.net/after-access

### DIGITAL COMPETENCIES

Internationally, discussions have been taking place about what digital skills should be promoted through schools, universities and other means.

The European Digital Competence Framework for Citizens, known as DigComp, offers a tool to improve citizens' digital competence. DigComp was first published in 2013 and has become a reference for many digital competence initiatives. It was revised in 2016 as DigiComp 2.0, which has since been adopted by UNESCO as a global framework.

The competencies listed under DigiComp 2.0 are the following:

COMPETENCE AREA	COMPETENCE
1. Information and data literacy	<ul><li>1.1 Browsing, searching and filtering data, information and digital content</li><li>1.2 Evaluating data, information and digital content</li><li>1.3 Managing data, information and digital content</li></ul>
2. Communication and collaboration	2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging in citizenship through digital technologies 2.4 Collaborating through digital technologies 2.5 Netiquette 2.6 Managing digital identity
3. Digital content creation	3.1 Developing digital content 3.2 Integrating and re-elaborating digital content 3.3 Copyright and licences 3.4 Programming
4. Safety	<ul><li>4.1 Protecting devices</li><li>4.2 Protecting personal data and privacy</li><li>4.3 Protecting health and well-being</li><li>4.4 Protecting the environment</li></ul>
5. Problem solving	<ul><li>5.1 Solving technical problems</li><li>5.2 Identifying needs and technological responses</li><li>5.3 Creatively using digital technologies</li><li>5.4 Identifying digital competence gaps</li></ul>

Not everyone needs to acquire all the competencies, of course. But as education, business, governance and other aspects of life become digitally transformed, more and more of these competencies would be needed.

Digital literacy does not mean everyone has to become a technical person in information technologies. Consider this simple analogy. People who own a personal vehicle – whether it is motorcycle, three wheeler, motor car or another type – are expected to know basic care for their vehicle and also how to drive it while respecting road rules and rights of other road users. Vehicle owners are also expected to attend to basic maintenance needs (such as changing a wheel), but not any major repairs. For anything advanced, a motor mechanic's services would be required.

Similarly, users of digital tools and services need to have the knowledge and skills for safe and productive use, respect for other users and knowing when and where to seek help. If there are any hardware or software problems, they can seek help from technical experts.

<sup>&</sup>lt;sup>1</sup> Details at: https://web.eecs.umich.edu/~cscott/rsi.html

## RESPONSIBLE ROAD USE AND DIGITAL USE: A COMPARISON

Roads connect people across physical spaces, just like the web helps connect its users across cyberspace. Everyday millions of people use roads — as pedestrians, passengers in public transport, or as drivers controlling their own vehicles. Most of them complete their journeys without any incident, yet road traffic accidents have been increasing in Sri Lanka (in 2018, a total of 3,164 were killed in such accidents, and thousands more were injured, some of them disabled for life.)

Road accidents happen due to the carelessness of drivers and pedestrians, and also due to poor road conditions and bad weather. Road rules and their strict enforcement can reduce (but not totally eliminate) these accidents. Road safety is not just a matter of laws and penalties: it also requires better designed roads, greater public awareness and individual responsibility by all road users.

Now imagine a situation where we avoid stepping on to the roads because there is a chance of being involved in an accident? Instead, we take precautions and some risks too: the benefits of road use are much greater than non-use.

Imagine, also, a situation where the government shuts down all roads because road accidents are increasing. That is not a viable situation, even for a few hours: the authorities have to find other ways to manage the problem.

It is the same with the web and digital tools. There are some risks involved, but users can minimize them by being better aware, and by taking certain precautions (like strong passwords and two-step authentication for their digital accounts – as explained elsewhere in this toolkit).

And yes, just as roads are sometimes used by criminals and perverts, the web can also be used by persons trying to use it for anti-social or criminal purposes. The right response is not to avoid using the web and all its services, but to know how to be safe and where to report and seek help if you experience these.

### HOW TO IDENTIFY FALSEHOODS

'Fake News' is a popular phrase, but not a very helpful one to understand the complexity involved, because falsehoods come in different shapes and forms:

- disinformation (deliberately spreading falsehoods);
- misinformation (unknowingly spreading falsehoods); and
- mal-information (falsehoods spread with intent of causing societal harm)

False information and manipulated images have been around for centuries. In the 21st century, however, the spread of web and social media use has made it much easier to originate and/or share falsehoods. Some of these can cause real harm: they can undermine public health, aggravate racial or religious tensions, confuse voters at elections, and even threaten social harmony by triggering violence.

It is important to remember that falsehoods are originated and spread by mainstream media too. Sri Lanka's newspapers, radio and television have a long history of spreading disinformation for political, ideological or other reasons.

The challenge is to help citizens spot dis/mis/mal information in both mainstream and social media (and also when it spreads through rumours).

<sup>&</sup>lt;sup>2</sup> https://www.pewinternet.org/2012/02/29/millennials-will-benefit-and-suffer-due-to-their-hyperconnected-lives/

Here are 10 tips on how to spot fake news, compiled by the UK newspaper *The Telegraph*.

- **Beware of stories that don't make sense:** One of the key signs of fake news is that the stories are highly improbable.
- Check the name of the news site that published it: The names of sites publishing news stories
  are often a hint that stories may be fake. Be a little more careful of websites that you haven't
  heard of before. Unfamiliar sites built to sound like news organisations are behind many fake
  news stories.
- **Beware of fake website addresses:** Some sites may try to impersonate real news outlets with domain names which seem similar but have slight differences.
- Look out for headlines which don't match the story: Make sure the headline and the story match up. False news sites often have headlines in all-capitals that capture the attention with emotional claims which don't match the copy that follows if you actually click to the news site.
- Check the date: Look out for suspicious dates. False news stories often include timelines which make no sense or contain the wrong dates for established events. For instance, images purporting to be of a 2016 terror attack in Brussels were actually from a 2011 attack on Moscow's Domodedovo Airport.
- Look for unusual spellings and mistakes: Often, the sign that news is fake is that it is of low
  quality, with spelling errors and an over-use of capitals. Real news sources will employ editors to
  remove these errors and ensure accuracy.
- Be wary of headlines which are trying to provoke anger: Headlines that seek to provoke anger are a sign of fake news. It does not matter what side you are on, the purpose of fake news is often to drive two groups apart and fuel prejudice and intergroup conflict.

- Look out for hoaxes spread by fake celebrity accounts: Sometimes stories can spread online after being shared by a fake celebrity, a social media account designed to impersonate a real person.
- Google-search the images: Fake news sites will often use criminal mugshots from unrelated stories or doctored images. Google-search the images to check for their veracity against other legitimate news sites and to see where they came from.
- If you are unsure, double check with a source you trust: Fake news stories will often appear on just one site, so if you're unsure, double check via a news source you know and trust, says Moy of Full Fact. "When it matters, double check. Particularly when it comes to health or other life decisions, always use a trusted source."



<sup>&</sup>lt;sup>3</sup> https://www.telegraph.co.uk/technology/information-age/how-to-spot-fake-news/

### A VISION FOR DIGITAL LITERACY

As we said earlier, just having the skills to operate digital tools is not enough. To make the best use of digital technologies and the web, users need to have the right attitudes and a clear sense of purpose too. They need to take care of themselves and respect others when using digital technologies.

In Sri Lanka, some people have various misconceptions about the internet – for example, viewing it as an inherently unsafe space, and considering social media as particularly dangerous and exploitative.

Any technology can be used well for the benefit of individuals and society as a whole. The same technology can also be misused by some for exploiting or harassing others, thus creating problems. We don't need to stop using any technology simply because some are misusing it. Instead, we as a society need to introduce adequate safeguards, increase user awareness and have regulatory systems to deal with those who misbehave or misuse it.



CASE STUDIES

CASE STUDY 1: PROMOTING DIGITAL LITERACY AMONG YOUTH

Sarvodaya-Fusion is a social enterprise focused on ICT for development with the mission "e-empowerment of rural communities". It is a subsidiary of the Sarvodaya movement, the largest charity non-profit

organization in Sri Lanka, founded in 1958.

For the past several years, Fusion has successfully designed and delivered programmes providing digital

literacy, digital access and digital benefits.

One of Fusion's key programmes is called 'IT Yahamaga' (or Right Use of IT), an

initiative that takes digital literacy to school children in Sinhala and Tamil languages. It is designed to create awareness among school children, teachers and parents on latest ICT technologies and tools, their positive usage, the security and control aspect to be safe in a digital world and the responsible handling of such ICT

tools.

IT Yahamaga's interactive training sessions include training on the safe and responsible use of the internet and contains topics that teach online users how to think critically online and effectively differentiate credible information from suspicious ones. It also includes empathy as a key value to express online with the aim of not just creating a safer and informed community but one which embraces multiple perspectives and

respects differences of opinion.

In recent months, Fusion has also launched a social media campaign countering hate speech and

misinformation on social media. Their core message is: Think before you share!

Read more:

https://fusion.lk/

https://www.facebook.com/sarvodaya.fusion/



### CASE STUDY 2: BUILDING DIGITAL LITERACY AT THE GRASSROOTS

Mahawilachchiya is a remote and rural area in Anuradhapura district, located close to the Wilpattu National Park. Yet the children of this village were connected to the internet and creating their own digital content from the early 2000s -- well before many city schools had internet facilities.

This was due to the efforts of Horizon Lanka Foundation, a pioneer in taking information and communication technology (ICTs) to the grassroots. Founded in 1998, it has been instrumental in teaching English and ICT to thousands of youth in rural Sri Lanka using innovative methods.

Horizon began as an after-school voluntary activity providing rural school children with further education in English and ICT. Its founder Nanda Wanninayaka was a teacher of English in government schools who soon left his job to devote all his time and energy to Horizon. He raised donations from local and foreign well-wishers for the non-profit organization which has pioneered new ways of raising digital literacy at the grassroots.

"I find that many parents and teachers in Sri Lanka are scared of the internet and smartphones due to media reports of various misuses. Some families prevent children from using any digital tools. This deprives such kids the opportunity to learn how to survive in tomorrow's information-driven society," says Horizon founder Wanninayaka.

He advocates the safe use of digital tools and the internet, instead of their non-use.

Many of Horizon's former students have gone on to graduate from universities and secured jobs in the IT industry. Some have even started their own business process outsourcing (BPO) – taking outsourced data processing work from companies in Colombo and overseas.

Horizon website says its commitment is "to make rural Sri Lanka as technologically evolved as any metropolis whilst retaining its culture and sense of community. With ICT and English education at the core of our activities, we strive to bridge the opportunity gap in Sri Lanka."

Horizon has recently started setting up franchised schools in other areas of Sri Lanka.



Read more: http://www.horizonlanka.org/en/about-us/our-story/ https://www.facebook.com/horizonlankafoundation/

### DISCUSSION POINTS

Here are a few questions and discussion points for further exploring this topic.

- Can you self-assess which digital competencies you already have, according to DigiComp
   2.0 list?
- What does digital identity mean to you? How do you manage or safeguard your digital identity? Have you ever had a situation where somebody else tried to pose as you in social media or elsewhere online and if so, what action did you take?
- What information sources do you trust, and why? When you come across something suspicious (or too good to be true), what steps do you take? How do you verify information? Discuss.
- When you create digital content, how do you find images? Do you just take any image from the web, or do you consider copyright (also known as intellectual property)? In which ways can you respect intellectual property of content you find online?
- All government schools have banned students from brining mobile phones to the classroom. Do you agree with this restriction? Discuss the pros and cons of allowing minors (i.e. all those below 18 years) to use smartphones with web browsing capability.
- The government has decided to provide all Advanced Level students and their teachers with tablets. Some welcome this decision while others are not so sure. Discuss the benefits of students having their own tablets for classroom work, and how to manage potential risks and hazards.

### LEARNING OUTCOMES

By the end of this module, you will have an understanding of the following:

- Computer literacy and digital literacy are related but they are not the same thing.
- Digital literacy involves mastering the skills to use digital tools and the web effectively, but it is also much more: it calls for knowing how to use these services in a safe, respectful and ethical manner.
- Sri Lanka's digital literacy levels are still low, and most of those who have these skills are in the younger age groups.
- Digital literacy is going to be a survival skill in the 21st century as we are exposed to more information, digital services as well as digital risks and opportunities.
- Digital literacy is not something limited to schools or universities. Anyone can learn or enhance these competencies at any stage in life. Indeed, as technology keeps evolving all the time, everyone needs to be updating or refreshing their digital literacy.

### FURTHER READING

### DigComp 2.0: The Digital Competence Framework for Citizens (European Union, 2016).

https://ec.europa.eu/jrc/en/publication/eur-scientif-

ic-and-technical-research-reports/digcomp-20-digital-competence-framework-citizens-update-phase-1-conceptual-reference-model

### A Global Reference Framework on Digital Literacy Skills for Indicator 4.4.2 (UNESCO, 2018)

http://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf

#### Digital Literacy Fundamentals (Canada's Centre for Digital and Media Literacy)

http://mediasmarts.ca/digital-media-literacy/general-information/digital-media-literacy-fundamentals/digital-literacy-fundamentals

#### How to spot fake news, a guide by the British Council

https://learnenglish.britishcouncil.org/intermediate-b1-reading/how-to-spot-fake-news

### What is fake news and how can you identify it? A guide by the BBC

https://www.bbc.com/news/av/technology-46149888/what-is-fake-news-and-how-can-you-identify-it



